

FUEL CELL STACK HAVING A REDUCED VOLUME

Abstract of the Disclosure

5 A reduced volume fuel cell stack (10) includes a plurality of thin fuel cells (46, 48, 50, 52, 54) and a plurality of thick fuel cells (56, 58). The thin fuel cells include water management channels (62A, 62B, 62C, 62D) and the thick fuel cells include cooling channels
10 (76A, 76B, 76C, 76D). At least two thin fuel cells (48, 50) are secured adjacent each other and adjacent each thick fuel cell (56, 58) within the stack (10). The water management channels (62A, 62B, 62C, 62D) have a depth that is at least four times less than a depth of
15 the cooling channels (76A, 76B, 76C, 76D) so that volume, weight and water content of the stack (10) are reduced.